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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/800,082	03/05/2001	Junsaku Nakajima	70551-55675	3271

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EXAMINER
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TRAN, THANG V

ART UNIT	PAPER NUMBER
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2653

DATE MAILED: 03/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/800,082

Applicant(s)

NAKAJIMA ET AL.

Examiner

Thang V. Tran

Art Unit

2653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-27 is/are allowed.
- 6) ☒ Claim(s) 1,3,4 and 6-9 is/are rejected.
- 7) ☒ Claim(s) 2 and 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 06/18/04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3, 4 and 6-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakajima et al. (US 6,760,299).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention “by another,” or by an appropriate showing under 37 CFR 1.131.

Regarding claim 1, Nakajima et al, according to Figs. 14-15, discloses an optical disc apparatus, which is used to reproduce information from an optical disc which has a plurality of pits having at least two different depths, comprising: a photoreceptor element (22) detecting a quantity of reflected light of an optical beam from the optical disk; a pit depth detecting unit (23-34) detecting a depth of each pit formed on the optical disk, based on the quantity of reflected light detected by the photoreceptor element; a servo signal generating unit (25-29), generating a tracking servo signal allowing the optical beam to track the pit string, by detecting deviation between the optical beam and the pit string, based on the quantity of reflected light detected by

Art Unit: 2653

said photoreceptor element; and an output control unit (26, 35-36) controlling an output of the tracking servo signal generated by the servo signal generating unit, based on the result of detection by the pit depth detecting unit.

Regarding claim 3, see column 24, lines 1-45.

Regarding claim 4, see column 23, line 60 to column 24, line 45, which the pit depth detecting unit includes a first detecting unit (30) generating a first signal representing the quantity of reflected light from the pit string, a second detecting unit (33) generating a second signal indicative of the difference of the quantity of reflected light from the pit string along the tangential direction, and a third detecting unit (34) generating a third signal indicative of depth of each pit, based on the first and second signals.

Regarding claims 6 and 7, see circuit 27 which shows the servo signal generating unit generates said tracking servo signal, by detecting a phase difference in the quantity of reflected light detected by the photoreceptor element from an inner peripheral side and an outer peripheral side of said optical disk.

Regarding claim 8, see element 22 which shows photoreceptor element has a cross-shape, divided into two along the tangential direction and divided into two along the radial direction of the optical disk.

Regarding claim 9, see element 22a in Fig. 17 which shows a photoreceptor element is divided into two along the tangential direction of the optical disk, one of the two-split photoreceptor element is further divided into two along the tangential direction of the optical disk, and the other is further divided into two along the radial direction of the optical disk.

*Allowable Subject Matter*

3. Claims 2 and 5 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
4. Claims 10-27 are allowed.
5. Claims 2, 5 and 10-27 are allowed over the prior art of record because the prior art of record, considered in combination or individually, fails to suggest or fairly teach an optical disk including all limitations as recited in claim 10 or an optical disk reproducing apparatus or method for tracking an optical disc including a combination of all limitations as particularly recited in each of claims 2, 5, 16 and 22. Claims 11-15, 17-21 and 23-27 are allowed with their respective parent claim.
6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thang V. Tran whose telephone number is (703) 308-1551. The examiner can normally be reached on M-F 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 703 305-6137. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2653

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Thang V. Tran  
Primary Examiner  
Art Unit 2653